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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/926,262	10/03/2001	Hijin Sato	214480US2PCT	8658

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EXAMINER

AFSHAR, KAMRAN

ART UNIT	PAPER NUMBER
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2681

DATE MAILED: 06/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/926,262

Applicant(s)

SATO ET AL.

Examiner

Kamran Afshar, 703-305-7373

Art Unit

2681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10/3/01
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 7 and 14-19 is/are rejected.
- 7) ☒ Claim(s) 5, 8-13 and 20-24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/4/01</u> | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 2681

## **DETAILED ACTION**

### ***Specification***

1. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

### ***Claim Objections***

2. Claim 8 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claims 1 - 7. See MPEP § 608.01(n). Accordingly, the claim 8 has not been further treated on the merits.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Art Unit: 2681

4. Claims 1-2, 14-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Benveniste (U.S. Patent 6,496,699 B2).

With respect to claim 1, 15, Benveniste discloses an autonomous zone forming method / a communication apparatus in a wireless communication system having a base station (See e.g. Fig. 1-5), comprising: a part which autonomously forms a zone (i.e. coverage area / boundary (s)) which is a service area of base station (See e.g. Abstract, Co. 1, Lines 10-16, Co. 3, Lines 10-20).

With respect to claim 2, 16, Benveniste discloses an autonomous zone (i.e. coverage area / boundary(s)) forming method / a communication apparatus in a wireless communication system having a base station (See e.g. Fig. 1-5), comprising: a part which detects that a zone (i.e. coverage area / boundary(s)) is newly formed around base station (See e.g. Abstract, Co. 1, Lines 10-16, Co. 3, Lines 10-20, Co. 4, Lines 37); and a part which autonomously (See e.g. Co. 5, Lines 25-35) changes a zone (i.e. coverage area / boundary(s)) which is a service area (See e.g. Co. 10, Lines 23-34) of base station according to a newly formed zone (i.e. coverage area / boundary(s)) (See e.g. Co. 15, Lines 39-51).

With respect to claim 14, Benveniste discloses a wireless communication system including a plurality of base stations (See e.g. 210s, 202, 203, 210 of Fig. 3), wireless communication system including at least a particular base (See e.g. cells site of Fig. 4 and / or 507 of Fig. 5, Co. 11, Line 65 – Co. 12, Line 23) station as only a part of plurality of base stations, particular base station including a part which autonomously forms a zone (i.e. coverage area / boundary(s)) of a service area (See e.g. Co. 5, Lines 25-35) of particular base station on the basis of receive quality of signals received from surrounding base stations (See e.g. Co. 12, Lines 29-50, Co. 15, Lines 39-51).

5. Claims 1-4, 6-7, 14-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Weaver (U.S. Patent 5,584,049).

With respect to claim 1, 15, Weaver discloses an autonomous zone (i.e. coverage area / boundary(s)) forming method / a communication apparatus in a wireless communication system having a base station (See e.g. Co. 7, Line 60 – Co. 8, Line 26), comprising: a part which autonomously forms a zone (i.e. coverage area / boundary(s)) which is a service area of base station (See e.g. Figs. 5A-5C, Co. 15, Line 45 – Co. 16, Line 41).

Art Unit: 2681

With respect to claim 2, 16, Weaver discloses an autonomous zone (i.e. coverage area / boundary(s)) forming method / a communication apparatus in a wireless communication system having a base station (See e.g. Co. 7, Line 60 – Co. 8, Line 26), comprising: a part which detects that a zone (i.e. coverage area / boundary(s)) is newly formed (See e.g. Co. 16, Lines 13-17 of Fig. 5C) around base station (See e.g. Figs. 5A-5C, Co. 15, Lines 45-67); and a part which autonomously changes a zone (i.e. coverage area / boundary(s)) which is a service area of base station according to a newly formed zone (i.e. coverage area / boundary(s)) (See e.g. Co. 16, Lines 1-41).

Regarding claims 3, 17, Weaver discloses a part which detects a congestion (i.e. load, traffic, capacity) state of a surrounding base station of base station (See e.g. Co. 6, Lines 21-49); and a part which enlarges (i.e. increases, expands) a zone (i.e. coverage area / boundary(s)) which is service area of base station according to congestion state to the direction of surrounding base station (See e.g. Co. 8, Lines 3-26, Co. 12, Lines 25, Figs. 5A-5C, Co. 15, Line 45 – Co. 16, Line 22).

Regarding claims 4, 18, Weaver discloses a part which determines zone of (i.e. coverage area / boundary(s)) base station on the basis of receive quality of a signal received from a surrounding base station of base station (See e.g. Co. 15, Line 45 – Co. 16, Line 22).

Regarding claim 6, Weaver discloses a part which measures a bit error rate or a packet error rate from information sent from surrounding base station to base station (See e.g. Co. 3, Lines 3-11); and a part which determines zone (i.e. coverage area / boundary(s)) which is service area of base station according to a result of the measurement (Co. 14, Line 61 – Co. 15, Line 15, Co. 15, Lines 45-67, Figs. 5A-5C).

Regarding claims 7, 19, Weaver discloses a part which detects a service content of a surrounding base station by base station; and a part which determines zone which is service area of base station such that the same services as service do not overlap in the same service area (See e.g. Co. 4, Lines 29-45)

With respect to claim 14, Benveniste discloses a wireless communication system including a plurality of base stations (See e.g. Co. 7, Line 60 – Co. 8, Line 26), wireless communication system including at least a particular base (See e.g. Co. 16, Lines 13-17 of Fig. 5C) station as only a part of plurality of base stations, particular base station including a part which autonomously forms a zone (i.e.

Art Unit: 2681

coverage area / boundary(s)) of a service area (See e.g. Figs. 5A-5C, Co. 15, Lines 45-67) of particular base station on the basis of receive quality of signals received from surrounding base stations (See e.g. Co. 16, Lines 1-41).

***Allowable Subject Matter***

6. Claims 5, 9-13, 20-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

With respect to claim 5, the prior art of record fails to disclose or render obvious that a part which measures received power or transmission delay of a signal sent to the base station from a surrounding base station; a part which calculates a distance between the base station and the surrounding base station on the basis of a result of the measurement; a part which determines the zone which is the service area of said base station on the basis of the result of calculation.

With respect to claim 9, the prior art of record fails to disclose or render obvious that a part which determines zone of the base station on the basis of a first distance between the base station and a zone edge of a surrounding the base station, and a second distance between the base station and a zone edge of the base station when transmission power of the base station is smallest.

With respect to claim 20, the prior art of record fails to disclose or render obvious that the step of: determining zone of the base station on the basis of a first distance between the base station and a zone edge of a surrounding base station, and a second distance between the base station and a zone edge of the base station when transmission power of the base station is smallest.

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) Maki (U.S. Patent 6,333,923 B1), Discloses Mobile Radio Communications System.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Kamran Afshar whose telephone number is (703) 305-7373. The examiner can be reached on Monday-Friday.

Art Unit: 2681

If attempts to reach the examiner by the telephone are unsuccessful, the examiner's supervisor, Gary, Erika A. can be reached @ (703) 308-0123. The fax number for the organization where this application or proceeding is assigned is (703) 872-9306 for all communications.

  
**Kamran Afshar**

  
**ERIKA GARY**  
**PATENT EXAMINER**